Red Line/Blue Line Connector Project
Working Group Meeting #3

LOCATION OF MEETING: West End Branch Public Library, 151 Cambridge St., Boston

DATE/TIME OF MEETING: July 30, 2009, 4-6:00 pm

Working Group Members:
John Achatz, Beacon Hill Civic Association
Noah Chesnin, Conservation Law Foundation (alternate)
Robert D'Amico, Boston Transportation Department
Jim Fitzgerald, Boston Redevelopment Authority
David Loutzenheiser, Metropolitan Area Planning Commission
John Messervy, Mass General Hospital
Robert O'Brien, Downtown North Association
Laura Sargent, Office of Representative Martha Walz (alternate)
Michael Sulprizio, Office of Representative Carlo Basile (alternate)
Wendy Price, Historic New England
John Vitagliano, Town of Winthrop

Public:
Noah Hodgetts, EEA

Staff:
Scott Hamwey, Executive Office of Transportation (EOT)
John Favorito, MBTA
Mark Pelletier, STV
Mark Ennis, STV
Kristine Gorman, STV
Peter Voorhees, VHB
Julie Conroy, VHB
Nancy Farrell, Regina Villa Associates (RVA)
Charlie Patton, RVA

PURPOSE/SUBJECT: This was the third meeting of the project working group concerning the connection of the Red Line and Blue Line at the Charles/MGH and Bowdoin stations respectively. This meeting provided updates on the project team's alternatives analysis and evaluation criteria, as well as a briefing on the Government Center improvement project from MBTA's John Favorito.

MEETING HANDOUTS:
- Agenda
- Evaluation Criteria

Introduction and Initial Comments
Nancy Farrell, Manager of Public Involvement from Regina Villa Associates, opened the meeting and asked the participants to introduce themselves (see the attendance list). Ms. Farrell briefly reviewed the Working Group goals. She noted there had been some changes to the Working Group list and that the updated contact list will be distributed shortly. Scott Hamwey, EOT, thanked everyone for attending and invited Mark Pelletier to begin his presentation.

Alternatives Presentation and Discussion of Construction Methodology
Mark Pelletier, Project Manager for STV, began with a brief review of the project schedule. Under the project's scope of work, the project team is studying four alternatives in addition to a no-build alternative. In the fall, more detailed plans for each alternative will be made available. In the spring of 2010, the project team will file the Draft Environmental Impact Report (DEIR). Mr. Pelletier introduced Mark Ennis, STV, to review the details for each alternative.

Mr. Ennis reviewed the two different tunnel construction methods, cut and cover and mining. In this approach, contractors cut into the surface, digging down to the depth of the tunnel to excavate it. They cover the surface with metal plates while the work is performed below ground. A mined tunnel is built with a tunnel boring machine and has fewer impacts on the surface, except for the locations of any shafts to enter/leave the below-ground site. Typically, a cut and cover approach is the cheaper, more conventional means of construction. However, for the Red Line/Blue Line Connector project, a cut and cover approach would most likely be equally or more expensive due to the necessary relocation of displaced utilities. All alternatives would feature a cut and cover segment along the alignment in the area east of Bowdoin Station.

Mr. Ennis reviewed four alternatives:
- a cut and cover alternative with Bowdoin Station eliminated (CC-1),
- a mining tunnel with Bowdoin Station eliminated (MT-2C),
- a cut and cover alternative with Bowdoin Station relocated (CC-2), and
- a mining tunnel with Bowdoin Station relocated (MT-3B).

Bowdoin Eliminated Alternatives: The CC1 alternative would use a cut and cover construction method for the entire alignment and would eliminate service at Bowdoin Station. The Blue Line tracks would split beyond the Charles MGH Station to provide storage space. Existing piers that underlie the Charles/MGH Red Line Station affect this design. John Messervy, Mass General Hospital, asked if Pier 7 could be removed for the benefit of the project and Cambridge Street. Mr. Ennis replied that it would be a challenge from a structural standpoint. The piers would be reinforced throughout construction.

An emergency egress would be built at the end of the Blue Line platform and would reach the median on Cambridge Street near the Anderson Street intersection. This alternative, along with CC-2, would likely use slurry wall excavation as the means of construction. One participant asked what factors require the tunnel to be constructed so deep on Cambridge Street at the Charles/MGH stop. Mr. Ennis replied that the tunnel had to be relatively deep to fit a large ventilation room, signals and communication equipment. The ventilation room can only be placed in limited locations along the alignment. The project team is investigating placing the ventilation room on the side of the tunnel. Bob O'Brien, Downtown North Association, confirmed the depth to the top of

the tunnel would be 25-35 feet with the ventilation room and approximately 15 feet without it. Mr. O'Brien confirmed that the track loop at Bowdoin Station would not be available for this alternative.

John Achatz, Beacon Hill Civic Association, asked whether the alignment near the vacant lot at Charles/MGH could be used for the ventilation room. Mr. Pelletier replied that the tunnel had to be deeper because of signaling and unit sub stations in addition to the ventilation room. Mr. Ennis added that the ventilation room had to be placed very specifically along the alignment and the ideal location was right before Charles/MGH Station.

Mr. O'Brien asked how long Cambridge Street would be shut down during construction for this alternative. Mr. Ennis said the project team is still working out the traffic plan. The construction would be staged so that one side of the alignment would be excavated first. Once the street was excavated to an adequate depth, the top would be decked over so that traffic could continue one lane at a time. Mr. O'Brien asked how long this process would take. Mr. Ennis replied that the project team did not have a specific length of time yet, but that it would take years. Mr. Pelletier said that information would be available in the fall.

Mr. Achatz asked if it would be possible to shift the alignment to either the left or right in Cambridge Street to reduce impacts. Mr. Ennis replied that the alignment balances impacts with what is feasible. The connection with the Red Line as well as the need to limit the number of utilities to be relocated established the alignment of the tunnel tracks.

Mr. Messervy asked whether the tracks could be placed on top of each other to reduce impacts to Cambridge Street and utilities. Mr. Ennis replied that this would cause problems with the connection into Charles/MGH Station as well as the need for sub stations and the ventilation room. It would also be difficult from a structural standpoint.

Noah Chesnin, Conservation Law Foundation, asked which utilities would be relocated. Mr. Ennis said the list could be found on the project website, http://www.eot.state.ma.us/redblue/. Mr. O'Brien asked if all of the utilities had been identified by the project team. Mr. Ennis replied that most had been identified and the team is still missing information on some smaller utilities. The presentation included a diagram of the location of the known utilities.

Mr. Ennis reviewed Alternative MT-2C. This alternative would feature a cut and cover construction in the area east of the Bowdoin Station, then use mined tunneling for the rest of the alignment. This alternative would minimize impacts to utilities and Cambridge Street along the mined tunnel portion of the alignment. There would be some street impacts at the Charles/MGH Station connection as well as at Bowdoin Station. The tail storage tracks could be mined via sequential excavation from an area near Charles Street. Utilities at the station that would need to be relocated could be managed as the tunnel work was under way. Mr. Messervy asked where this construction staging area near Charles Street would be exactly. Mr. Ennis said the project team would have more details at the next meeting.

The loop and Bowdoin Station would be closed and a reverse crossover would be placed east of Government Center. Mining would cut two tunnels for the track

alignment. From there the tunnels would be opened up. Mr. Ennis said this process would be discussed in more detail at the next meeting.

Bowdoin Relocated Alternatives: Mr. Ennis reviewed alternative CC-2, a cut and cover option. This alternative is similar to alternative CC-1, but Bowdoin Station would be relocated. The Bowdoin head house location would remain the same with accessibility upgrades added. An emergency egress hatch would be located within the raised median on Cambridge Street.

Mr. Ennis reviewed MT-3B, a mined tunnel. Alternative MT-3B would essentially be the same alternative as MT-2C with Bowdoin Station relocated. There would be a shaft at New Chardon Street for the mining work; and an access shaft at Charles/MGH. There would also be a cut and cover segment in the area of New Sudbury and Somerset Streets. Mr. Ennis showed diagrams of the tunnel sections, which are in the PowerPoint presentation as well.

Another challenge with both CC-2 and MT-3B is the tracks would need to flair out wider as they approach Bowdoin Station, thus widening the project footprint.

Mr. O'Brien said the four alternatives were very thoughtful options. He said it is likely that the cut and cover options will have unacceptable social costs while the mining tunnel options will present unacceptable financial costs. He questioned whether any of these options would be viable. He suggested the project team look at more creative options for connecting the Blue Line with Charles/MGH Station. He suggested considering a people mover. It would require a smaller single tunnel and could pick up green line riders at Government Center as well. Mr. Pelletier said the project team is not scoped to look outside of a heavy rail connection between the Blue Line and Red Line. In response Mr. Pelletier noted his surprise that, at this stage, the mined tunnel appears to be less expensive than the cut and cover tunnel. Preliminary cost estimates rate the mining tunnel options as approximately 20 to 30 percent less expensive. Mr. O'Brien replied the overall cost of all of these options would likely prevent implementation. He wondered if a transportation system management option was the only viable option. Mr. Hamwey said that technically Blue Line riders already have a people mover in the form of the Green Line at Government Center. He reminded the working group that EOT is legally committed to designing a rail connection.

John Vitagliano, Town of Winthrop, said that support for the Red Line/Blue Line Connector continues to grow from legislators and community members in East Boston. Commuters from East Boston prefer a one seat ride to the Red Line.

Presentation of Revised Evaluation Criteria

Mr. Pelletier reviewed the evaluation criteria and the scoring legend. The team reviewed comments the Working Group members made at the last meeting and comments submitted by the members afterward. Mr. Pelletier said it took the team quite a while to talk through the evaluation process. The team included concerns raised by the Working Group and developed a scoring system for each evaluation criterion based on a scale of negative 4 through positive 4. A score of 4 is the most advantageous, a score of negative 4 is least advantageous and a score of 0 is neutral. The scores for ridership and cost are measured in orders of magnitude. Ridership numbers will be available in the fall and the costs will be estimated in the Final Environmental Impact Report.

Mr. Pelletier reviewed the evaluation criteria and scores for each alternative. He reminded the members that the data is not final and some of the ratings may change.

Evaluation of Alternatives	Build Alternative 1: Bowdoin Relocated		Build Alternative 2: Bowdoin Eliminated	
	MT3B	CC2	MT2C	CC1
TRANSIT SERVICE/OPERATIONS				
Ridership	4	4	4	4
Station Access	4	4	2	2
Quality of Transit Service	4	4	4	4
Operations	4	4	4	4
Storage and Layover	4	4	4	4
Average Score	**4.00**	**4.00**	**3.60**	**3.60**
CONSTRUCTION IMPACTS				
Construction Duration	-1	-4	0	-3
Traffic Impacts	-1	-4	0	-3
Pedestrian/Bicycle Impacts	-1	-4	0	-3
Environmental Impacts (related to construction)	-1	-4	0	-3
Impacts to Blue Line Operations	0	0	0	0
Impacts to Red Line Operations	0	0	0	0
Impacts to Business and Residents	-1	-4	0	-3
Average Score	**-0.71**	**-2.86**	**0.00**	**-2.14**
COMMUNITY IMPACTS				
Impact on Business Community	4	4	1	1
Impact on Residents	4	4	1	1
Impact on Cambridge Street	0	0	1	1
Opportunity to Upgrade Utilities	1	3	1	3
Average Score	**2.25**	**2.75**	**1.00**	**1.50**
ENVIRONMENT				
Historic/Archeological	0	-1	0	-1
Noise and Vibration	-1	-1	-1	-1
Groundwater/Stormwater	0	0	0	0
Parklands	-1	-1	1	1
Traffic	1	1	0	0
Average Score	**-0.20**	**-0.40**	**0.00**	**-0.20**
COST				

Capital Cost	2	1		4	3
Operating and Maintenance Cost	1	1		2	2
Average Score	**1.50**	**1.00**		**3.00**	**2.50**
COORDINATION					
Available Right-of-Way	-1	-2		-2	-1
Impact on Other Area Transportation Projects	1	-1		2	0
Compatibility with State Implementation Plan	4	4		4	4
Average Score	**1.33**	**0.33**		**1.33**	**1.00**
SUM OF AVERAGES	**8.17**	**4.83**		**8.93**	**6.26**

Mr. Achatz asked whether ridership would decrease or increase due to losing the Bowdoin Station. Mr. Pelletier said that the ridership numbers would address that question. The project team left the ridership numbers as equivalent (or neutral) during this review so as not to affect the averages. Mr. Achatz asked whether the extra Station's impact on headways would affect ridership. Mr. Pelletier said the Bowdoin Station would add approximately one minute to headways.

Mr. Chesnin asked if air quality impacts are included in the evaluation criteria. Mr. Pelletier replied that air quality results will be available with the ridership numbers. Peter Vorhees, VHB, replied that air quality impacts would likely be the same for each alternative. Mr. Chesnin requested that Air Quality have its own separate line under Environment criteria.

Mr. O'Brien said that the impact to Cambridge Street needs to be emphasized more between the cut and cover and mining tunnel options.

Laura Sargent, from Representative Walz's office, asked whether any trees would be impacted by the alternatives. Mr. Pelletier said that some trees would be removed and replaced in most cases. The MT-2C option (mined tunnel with Bowdoin Station eliminated) would have the least impact on trees.

Mr. O'Brien said that business and residents both needed their own line under construction impacts. He also suggested impacts to hospitals as another line.

Mr. Vitagliano suggested that cost per rider have a separate line. He noted that cost could be both a benefit and a detriment. A high cost could be seen as a benefit when looking for stimulus funding. Mr. O'Brien said that cost should be ranked from 0 to negative 4. The potential benefits of a high cost could be measured in a separate line titled "cost magnitude" or "economic benefit."

Mr. Achatz asked the project team to clarify the criterion "available right of way." Mr. Voorhees replied the criterion reflects how much the alignment veers from the original tunnel.

Mr. Messervy asked whether impacts to properties due to construction staging were measured. Mr. Ennis replied that each alternative needs construction staging areas and there was no real differential.

Mr. O'Brien confirmed that all of these scorings assume that the proposed changes to Government Center will be implemented.

Mr. Pelletier pointed out that the mined tunnel options are performing better than the cut and cover options based on the current evaluation. The team will continue to add and refine data as more information becomes available, including ridership and costs.

Presentation on Government Center Station Redesign

John Favorito, MBTA, gave an update on the Government Center Station Redesign project. The project's objectives are to make the Government Center Station accessible to persons with disabilities, improve Cambridge Street by making it more pedestrian friendly and allow six-car Blue Line train sets. Under the current plans, there will be a new Blue Line emergency exit. MBTA worked with the Boston Redevelopment Authority and the City of Boston to develop this design.

Mr. O'Brien said he was under the impression that the original plan was to create a separate head house for the Blue Line at Government Center. This would be hypothetically cheaper than keeping Bowdoin Station active with the Red Line/Blue Line connection. Mr. Favorito responded that the reasons for limiting the Blue Line head house to an emergency exit were due to a number of factors, including cost and development pressures. He gave an abbreviated version of the lengthy history of the project. The original design had two entrances and exits, serving the Green Line and the Blue Line. The design was intended to make the station a landmark, and construction bids came in much higher than the budget. After consulting with its partners, the MBTA has amended the surface elements of the design, while the subsurface plans remain the same. The Federal Transit Administration is pressuring the MBTA to finish the project and improve accessibility. Mr. Favorito said that the current project design could begin construction by 2012.

There was a discussion of aspects of the subsurface arrangement and the potential to move the emergency egress – currently planned for an area close to the farmer's market on Cambridge Street in front of City Hall – to the location of the original Blue Line head house, which was closer to the JFK Building. Mr. Hamwey asked if the current design for the emergency egress could be upgraded to permit full access later on. Mr. Favorito replied that it would be possible, but there would not be a lot of space for a full access head house. He said it would be difficult from a public safety standpoint to move the emergency egress to a spot better suited for full access.

Mr. O'Brien asked if a less lavish and expensive design for the Blue Line head house could be put out for bid instead of the minimum build. Mr. Favorito replied this wasn't feasible at the time due to pressure from FTA to improve the station's accessibility as soon as possible.

Mr. Hamwey noted that the design didn't preclude improvements down the line. He said that the Working Group will likely find there will be less ridership with the relocated Bowdoin Station, making the Government Center Station improvements a moot point.

Public Comment
There were no questions or comments from members of the public.

Next Meeting
Ms. Farrell noted that the next Working Group meeting will be held in September, with the date and location to be confirmed. The team is planning an October Public Meeting to present the alternatives to the community. [NOTE: The next meet was subsequently set for October 1 from 4 to 6 pm at the West End Library.]